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Fall is prime time to sample fields for SCN

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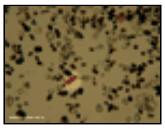
The soybean cyst nematode (SCN) is an extremely damaging and widespread pest of soybean in Iowa. The nematode infests approximately 70 percent of the fields statewide. However, SCN usually causes no obvious aboveground symptoms for many years after being introduced into a field. Consequently, many SCN-infested fields in Iowa have not been diagnosed. The lack of symptoms and subsequent missed diagnosis are unfortunate because the key to effective management of SCN is early detection, before large nematode population densities develop.

Soybean cyst nemadote on roots of healthy-looking soybean at Iowa State University Field Extension Education Laboratory, Boone County, Iowa.

Enlarge [1]



Soybean cyst nematode egg (in circle) viewed through a microscope at low power.

Enlarge [2]

Soybean cyst nematode egg viewed through microscope at high power.

Enlarge [3]

SCN can be detected in soil samples, and fall is an ideal time to sample fields for this pest. Soil samples can be collected any time throughout the fall until a significant snowfall or a hard freeze occurs. Following are some guidelines for sampling fields for SCN:

- Ideally, fields should be sampled using a soil probe.
- Soil cores should be collected to a total depth of 6 to 8 inches.
- Collect soil cores from 15 to 20 places in a sampling area.
- Collect a separate set of soil cores for each 20 acres or so.
- Combine and mix soil cores, and fill a sample bag with one cup or more of soil.
- Label the outside of each sample bag with a permanent marker.

It is most logical to sample fields from which corn has just been harvested because these are

the fields where soybean will be grown in 2005. Samples also can be collected from fields in which soybean was grown in 2004 if unusual plant growth was observed during the season or if unexplained low yields were obtained. Also, keep in mind that one set of soil cores can be collected for both soil fertility and SCN testing.

Numerous private soil testing laboratories in Iowa offer SCN analysis of soil samples. Additionally, the Iowa State University Plant Disease Clinic tests soil samples for SCN. The mailing address of the clinic is 323 Bessey Hall, Department of Plant Pathology, Iowa State University, Ames, IA 50011-1020. The current fee for SCN analysis is $15 per sample.

Numerous Iowa State University Extension publications on SCN can be obtained free of charge from any county extension office or on the Internet at http://www.soybeancyst.info [4].

Healthy-looking soybean infected with soybean cyst nematode at Mineola, Iowa.

Enlarge [5]

Health-looking soybean infected with soybean cyst nematode at Iowa State University Field Extension Eduation laboratory, Boone County, Iowa.

Enlarge [6]

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Source URL:
http://www.ipm.iastate.edu/ipm/icm//ipm/icm/2004/10-4-2004/scnsample.html

Links:
[1] http://www.ent.iastate.edu/imagegal/plantpath/soybean/scystnem/scnroots.html
[2] http://www.ent.iastate.edu/imagegal/plantpath/soybean/scystnem/scnlowpower.html
[3] http://www.ent.iastate.edu/imagegal/plantpath/soybean/scystnem/scnhighpower.html
[4] http://www.soybeancyst.info
[5] http://www.ent.iastate.edu/imagegal/plantpath/soybean/scystnem/mineolascn.html
[6] http://www.ent.iastate.edu/imagegal/plantpath/soybean/scystnem/feelscn.html